DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 22 October 2009.

2. Claims 1-7 and 28-47 are pending and present for examination.

Response to Amendment

3. Claims 1, 32, 37, and 42 have been amended.

4. No claims have been further cancelled.

5. No claims have been newly added.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-7 and 28-47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cleraux et al (U.S. Patent No. 6,944,620, hereinafter referred to as CLERAUX), filed on 4 November 2002, and issued on 13 September 2005, in view of Jans et al (USPGPUB No. 2002/0188625, hereinafter referred to as JANS), filed on 11 June 2002, and published on 12 December 2002.

8. **As per independent claims 1, 32, 37, and 42,** CLERAUX, in combination with JANS, discloses:

> A method for maintaining a data structure corresponding to an object having a first link from a first directory and a second link from a second directory in a filesystem, the object to which the data structure corresponds being selected from the group consisting of a file and a directory in the filesystem, the first and second directories being parent directories to the object to which the data structure corresponds, the method comprising the steps of:

storing in the data structure a first anchor point for the object {See CLERAUX, C5:L56-60, wherein this reads over "an internal database for the file information" and C62-65, wherein this reads over "the emulation library 220 will access its internal database to retrieve the information for that special UNIX file"} that references the first directory, said first directory implemented on a first filesystem type {See CLERAUX, C6:L11-21, wherein this reads over "the host system 190 uses a Win32 file system, and the target system 180 uses a UNIX file system"; and C7:L12-27, wherein this reads over "[t]he first directory structure 400 can be implemented on a UNIX file system"}; and

storing in the data structure a second anchor point for the object {See CLERAUX, C5:L56-60, wherein this reads over "an internal database for the file information" and C62-65, wherein this reads over "the emulation library 220 will access its internal database to retrieve the information for that special UNIX file"} that references the second directory {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"}, said second directory implemented on a second filesystem type different than the first {See CLERAUX, C6:L11-21, wherein this reads over "the host system 190 uses a Win32 file system, and the target system 180 uses a UNIX file system"; and C7:L12-27, wherein this reads over "the second directory structure 401 can be implemented on a Win32 file system"}; and

concurrently with storing the first and second anchor points, converting the first filesystem type to the second filesystem type including activating the second directory and deleting the first directory {See JANS, [0038], wherein this reads over "the migration plug-in will be replaced by the null stub and the old repository will be removed"} while maintaining the filesystem in a full operational capacity {See CLERAUX, C6:L11-21, wherein this reads over "an exemplary configuration file of the emulation library 220 (e.g., a UNIX file library) and the emulation library 220 comprises data to emulate a UNIX File system on a Win32 file system"}.

CLERAUX discloses a system wherein hard links and soft links are used in accessing files and directories of various filesystems such as Win32 and UNIX systems. Specifically, the files and directories of one filesystem (e.g. UNIX) may be used in second filesystem (e.g. Win32) by accessing the files and directories of the UNIX system through an emulation method.

The Examiner notes that while CLERAUX fails to disclose an object having a first link from a first directory and a second link from a second directory in a filesystem such that the first and second directories are parent directories to the object, wherein CLERAUX discloses that UNIX files include hard links and soft links, it would have been obvious to one of ordinary skill in the art that said first and second anchor points may be read upon by the hard links and soft links disclosed by CLERAUX. Additionally, it would have been obvious to one of ordinary skill in the art that said files are accessed by accessing a database of hard links and soft links (i.e. anchor points) such that the same file or directory (i.e. data structure) may be accessed by a plurality of different filesystems.

Additionally, while CLERAUX may fail to expressly disclose the feature of "activating the second directory and deleting the first directory," JANS discloses a system wherein once the new version of a data repository is installed, any old version of the service is removed, specifically, the old data repository. See JANS, Abstract. Thus, it would have been obvious to one of ordinary skill in the art to apply the technique of converting a data repository to a new version wherein the old data repository is thereafter removed as taught in JANS, to improve the multiple filesystem invention of CLERAUX for the predictable result of migrating to a new filesystem type while maintaining full operational capacity.

9. **As per dependent claims 2, 33, 38, and 43,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the object is a file {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

10. **As per dependent claims 3, 34, 39, and 44,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the object is a directory {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

11. **As per dependent claims 4, 35, 40, and 45,** it would be inherent to the claimed invention that wherein the directory is found in a filesystem, the directory is of the first filesystem implementation.

12. **As per dependent claims 5, 36, 41, and 46,** CLERAUX, in combination with JANS, discloses:

The method of claim 4, wherein the first link {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"} from the first directory to the object is a directory link {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}

the second link {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"} from the second directory to the object is a file link {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

13. **As per dependent claims 6, 37, 42, and 47,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, further comprising the steps of:

receiving a request for information about the first link {See CLERAUX, C5:L44-46, wherein this reads over "the OS 61.1 detects that needed information is not in memory}; and

in response to the request, using the first anchor point when retrieving the information {See CLERAUX, C5:L55-65, wherein this reads over "the server process 221 queries the emulation library"}.

14. **As per dependent claim 7,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, further comprising the steps of:

receiving a request for information about the object {See CLERAUX, C5:L44-46, wherein this reads over "the OS 61.1 detects that needed information is not in memory};

selecting the first anchor point instead of the second anchor point to respond to the request {See CLERAUX, C5:L62-65, wherein this reads over "if the requested file is a special UNIX file, such as a device file, the emulation library 220 will access its internal database to retrieve information for that special UNIX file"}.

15. **As per dependent claim 28,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the second filesytem type is a newer version of the first filesytem type {See CLERAUX, C1:L29-50, wherein this reads over "Windows NT uses Win32 file systems, such as FAT, or NTFS"}.

16. **As per dependent claim 29,** CLERAUX, in combination with JANS, discloses:

The method of claim 28, wherein the second filesystem type is NTFS, and the first filesystem type is FAT32 {See CLERAUX, C1:L29-50, wherein this reads over "Windows NT uses Win32 file systems, such as FAT, or NTFS"}.

17. **As per dependent claim 30,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the first and second filesystem types are associated with different operating systems {See CLERAUX, C55:L19-25, wherein this reads over "if the host file system format is a Win32 file system and the target file system format is a UFS file system"}.

18. **As per dependent claim 31,** CLERAUX, in combination with JANS, discloses:

The method of claim 30, wherein the first filesystem type is associated with an HP-UX system, and the second filesystem type is associated with a Windows operating system {See CLERAUX, C55:L19-25, wherein this reads over "if the host file system format is a Win32 file system and the target file system format is a UFS file system"}.

The Examiner notes that the Unix filesystem of Cleraux would read upon the HP-UX system recited in the present claim since the HP-UX system is simply a proprietary variant of a Unix filesystem.

Response to Arguments

19. Applicant's arguments with respect to the claim rejections under 35 U.S.C. 103 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL KIM whose telephone number is (571)272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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